

CLAIMS

1. A method of detecting abnormalities in digital imagery comprising the steps of:
 - providing a set of binary images derived from a plurality of slice images representing cross-sections through a body;
 - performing a first spherical summation operation as a function of voxel locations
- 5 in said set of images to provide a first spherical summation value;
 - performing a second spherical summation operation as a function of said voxel locations in said set of images to provide a second spherical summation value;
 - computing a ratio of said first spherical summation value to said second spherical summation value; and
- 10 comparing said ratio to a threshold value and creating a set of detection images by turning voxels ON which exceed said threshold value.
2. The method of claim 1 wherein said first spherical operation is performed over a spherical region of a first radius and said second spherical operation is performed over a spherical region of a second radius less than said first radius.
3. The method of claim 1 wherein said slice images comprise binary masks.
4. The method of claim 3 wherein said binary masks result from segmentation of said slice images.
5. The method of claim 4 wherein said segmentation corresponds to identification of an object within a body.
6. The method of claim 5 wherein said binary mask has values of -1 inside said object and values of +1 outside said object.
7. The method of claim 5 wherein said object comprises a colon.
8. The method of claim 6 wherein said object comprises a colon.

9. The method of claim 1 wherein said abnormalities comprise polyps in a colon.